

ASKANIA INSTRUMENTS PRODUCTION PROGRAM



Continental
Elektroindustrie
Aktiengesellschaft

Askania-Werke
Berlin-Mariendorf



Continental Elektroindustrie AG.

Askania-Werke Berlin-Mariendorf
Großbeerenstr. 2-10
Telephone 75 08 21
Teleprinter 018 4348
Cable address: Askaniawerke Berlin

Engineering Offices of the Continental Elektroindustrie AG.

Cologne
Düsseldorf
Frankfort on the Main
Hamburg
Hannover-Wülfel
Mannheim
Munich

Branch Offices

Continental Elektroindustrie AG.
Askania-Werke
Werk Offenbach/Main
Offenbach/Main, Humboldtstr. 8
Telephone: Frankfort/Main 8 58 55
Teleprinter: 04 152818
Cable address:
Askaniawerke Offenbach/Main

Askania-Werke Division of
Continental Elektroindustrie AG.
U.S. Branch
4913, Cordell Avenue
Bethesda/Maryland/USA

Askania Controllers and Measuring Instruments for Power Plants and the Process Industry

Automatic Controllers, Control Equipment and Systems

with electric, hydraulic or pneumatic auxiliary power or, in combined form as electro-hydraulic or electro-pneumatic types.

Gas Pressure Controllers

as overflow and reducing controllers, gas production controllers, suction and circulation controllers, draft controllers, furnace pressure controllers.

Gas Ratio Controllers

to mix gases, or gas and air for industrial furnaces. Gas distribution controllers.

Flow Controllers

with differential pressure transmitters for steam, gases, and liquids.

pH-Controllers

and ratio controllers with pH-correction.

Steam Pressure Controllers

as reducing and back pressure controllers, limit impulse controllers, coupling controllers and steam accumulator controllers.

Turbine Controllers

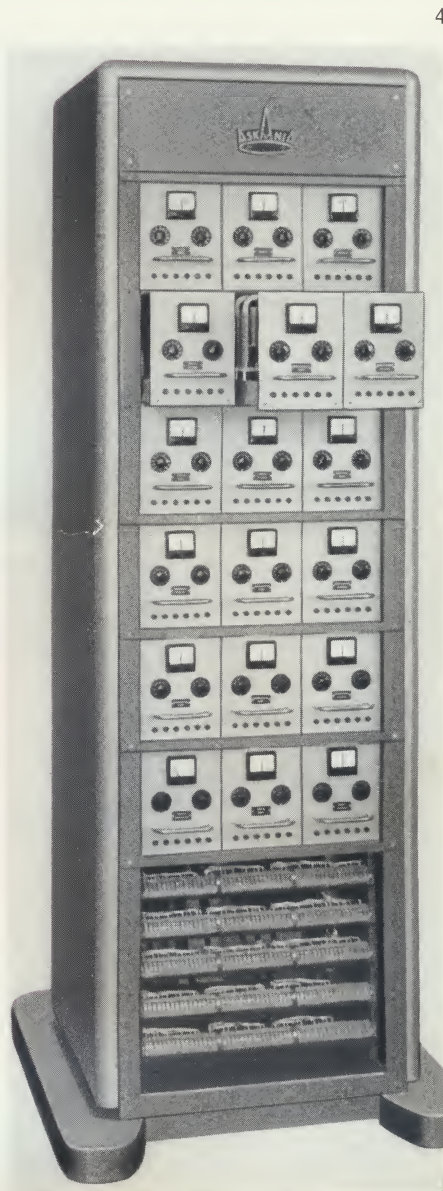
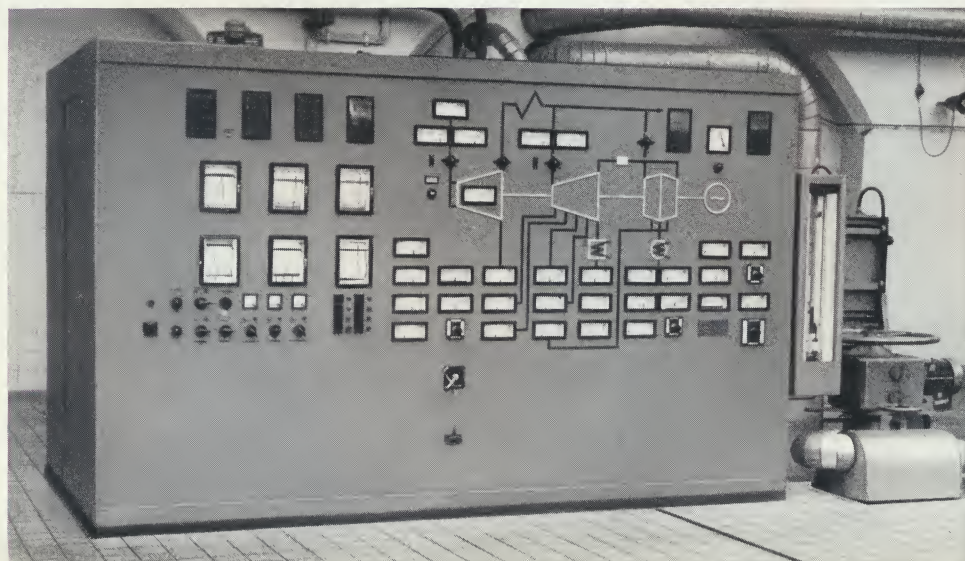
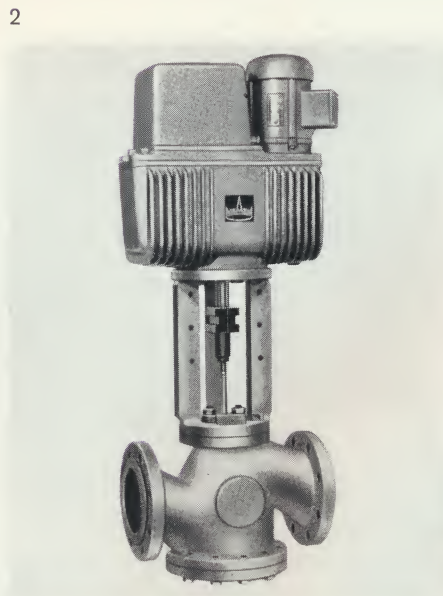
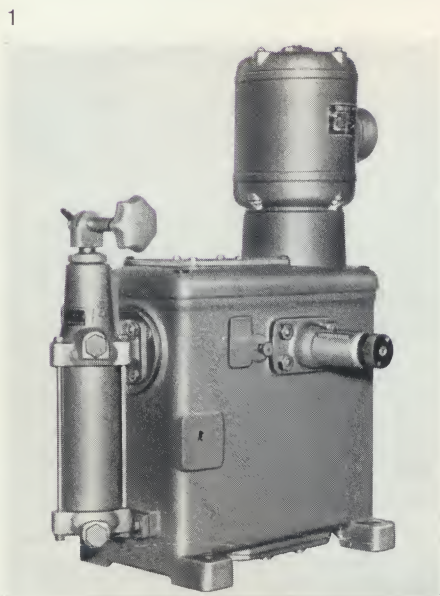
as back-pressure regulators, steam extraction regulators, and labyrinth steam pressure regulators.

Liquid Level Controllers

according to the differential pressure principle, or with transmitter, for open or closed vessels.

Drying Controllers

for paper machines.



**Boiler and Furnace Controllers,
Water Level Controllers,
Superheated Steam Temperature
Controllers**

for steam boilers of all types and furnaces, also for highest pressures.

**Temperature Controllers,
Fuel-Air Ratio Controllers,
Furnace Pressure Controllers**

for soaking pit furnaces, pusher-type furnaces, rotating hearth furnaces, and other heating furnaces, open hearth furnaces, cupolas, cowpers and industrial furnaces.

Edge Position Controllers

for metal, rubber, plastic and paper webs, sieves, conveyor belts as in rolling mills, annealing sections, surface treatment plants, for tire manufacturing plants, printing machines, paper machines etc.

Viscosity Controllers, Type Viskosimat
for viscous fuel oils.

Flow Controllers

type "Fluxer" self-operated, for oil and other liquids; also used as final control element for relay-operated controllers.

Differential Pressure Controllers
self-operated for oil burners.

Differential Pressure Controllers
self-operated, oil pumps and thermostats for oil-fired stoves and kitchen ranges.

**Complete Centralised Control Systems
and Control Stations**

with control panels and desks of any size for power plants and the process industry.

Measuring Instruments and Supervisory Equipment

with mechanical measuring elements: metal diaphragm, Bourdon tube, dipping bell, bi-metal spring; with electrical measuring elements: moving and cross coils pivoted or ribbon suspended.

Electronic Transmitters

with d.c. signal output, type force balance transmitter, for flow, pressure and liquid level; type thermobalance (current balance) used as a mV transmitter.

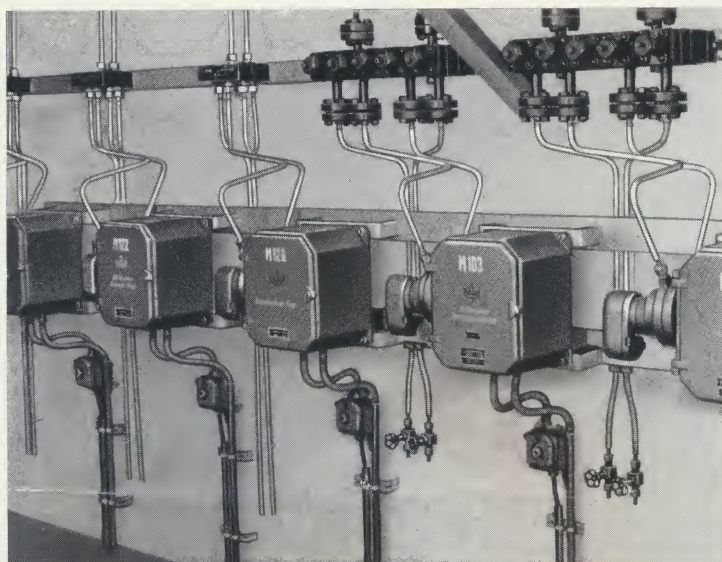


Fig. 1 Small Hydraulic Control Unit, type EHR 31

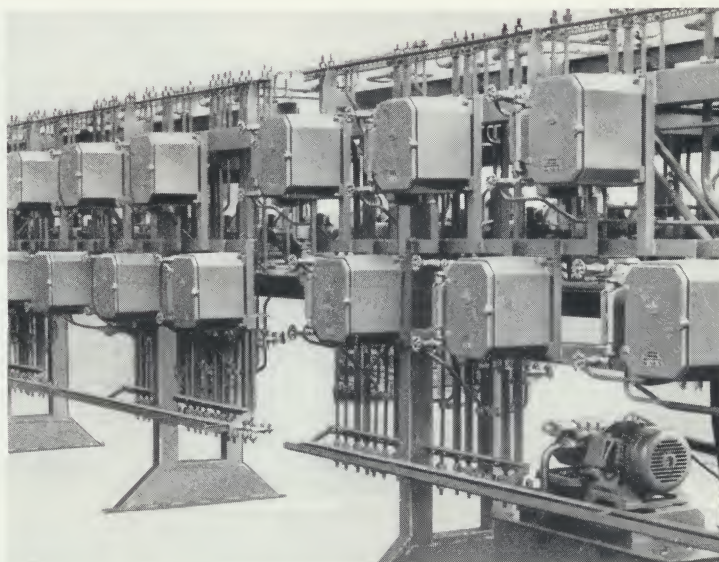


Fig. 2 Proportionally Acting Electro-hydraulic Actuator

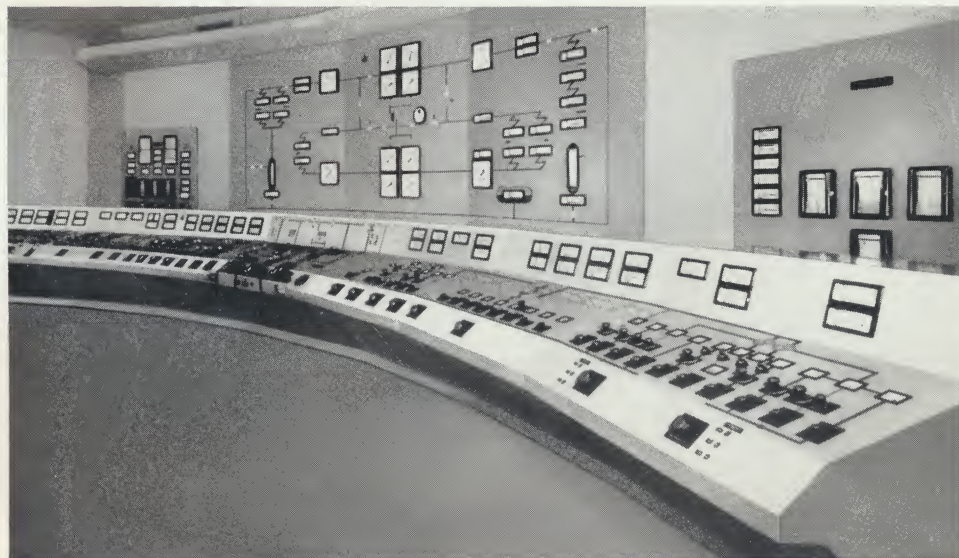
Fig. 3 Control Panel for the 65 MW turbine of a power plant

Fig. 4 Control Panel for boiler control with slides

Fig. 5 Electronic High-pressure Force Balance Transmitter used as flow transmitter at a heavy duty boiler

Fig. 6 Electronic Force Balance Transmitter as differential pressure transmitter for the flow of blast in a blast furnace

Fig. 7 Central Control Room with instrumentation for the control of modern heavy-duty boilers of a power plant.



Pneumatic Transmitters

used as transducers for flow, pressure and liquid level.

Indicators

for connection to transmitters or, acting directly, for pressure, differential pressure, flow (quantity), temperature, pH etc. of edge-wise or circular shape for flush or wall mounting.

Follow-up Indicators

type "Secutor", with electrical measuring elements to adjust, control and correct the ratio of two variables.

Recorders

for pressure, flow (quantity), temperature, pH etc. designed as one- or two-colour continuous strip chart recorder for flush or wall mounting.

Integrators

for steam-, gas- and liquid-flow in connection with flow meters operating in accordance with the differential pressure principle.

Flow Rate and Flow Quantity Measuring Instruments

with transmitters, indicating, recording and integrating, for gases, steam, and liquids, also with pressure and temperature correction.

Flow Rate and Flow Quantity Measuring Instruments

by-pass type (partial flow system), indicating, recording, integrating, for compressed air and for gases of higher pressure, independent of fluctuations of static pressure and temperature; stationary and portable units.

Water Manometers "Minimeter"

for measuring minute pressures and pressure differences in air and gas

pipes, also for calibrating measuring instruments and for use in laboratories.

Wind Measuring and Wind Protection Installations

for bridge cranes, cranes, conveyors, putting-down machines and industrial facilities.

pH-Meters

for high-resistance glass electrodes, also used as multiple instrument.

Hand Vibrographs

for measuring mechanical vibrations.

Complete Supervisory Installations

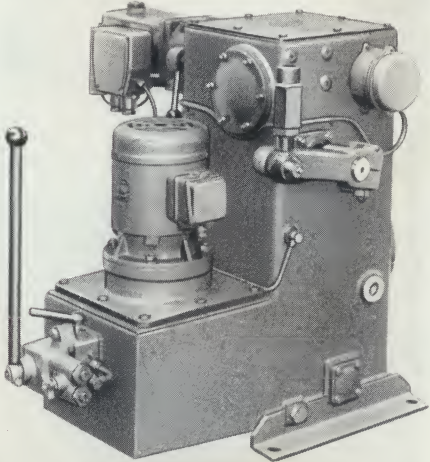
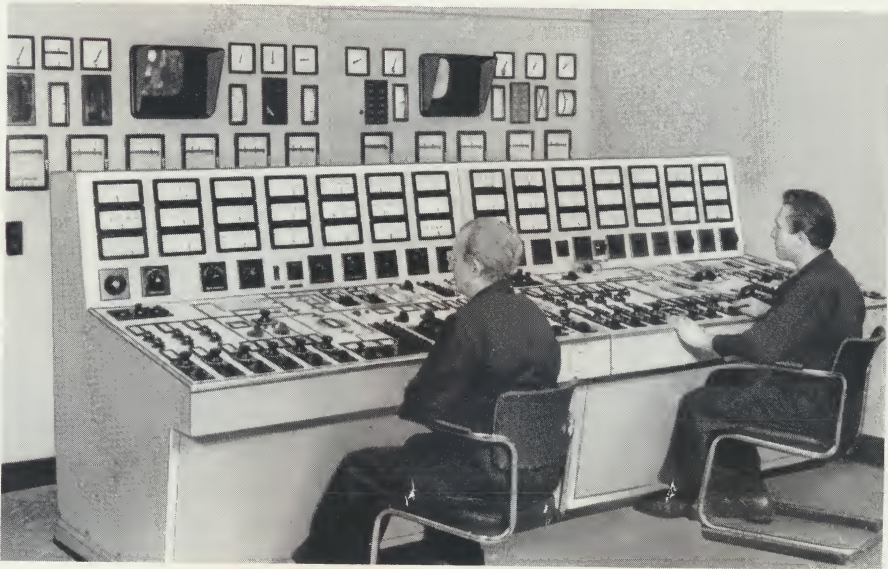
with control panels, -boards or -desks as independent installation or combined with manual control and automatic regulators.

Installations for Central Data Acquisition

Fig. 8 Part of a Control Room of an urban power station

Fig. 9 Differential Pressure Controllers for oil-fired stoves and kitchen ranges on the test stand

Fig. 10 Electro-hydraulic High-duty Actuator



Askania Instruments for Science and Engineering

Surveying Instruments for Geodetic Purposes

Tacheometer Theodolites for micrometer- or scalemicroscope readings · Universal Theodolites (One-second Theodolites) · Precision Theodolites with photographic or cinematographic recording of both circles · Leveling Instruments either of the type with prism compensator or of conventional type with bubble coincidence · Base Line Measuring Apparatus with invar wires or tapes · Bridge Length Controlling Equipment.

for Meteorological Purposes

Balloon Theodolites for determining direction and velocity of wind by means of pilot balloons · Recording

Potentiometer Theodolites · Microbarometers · Microbarographs · Transmissometers.

Astronomical and Astrophysical Instruments

Instruments for determining time and geographical coordinates: Transit Instruments, Meridian and Vertical Circles, Photographic Zenith Telescopes, Schmidt Telescopes · Schmidt-Cassegrain Telescopes · Astrographs · Coordinate Comparators · Iris Diaphragm Photometer, Lictern Type.

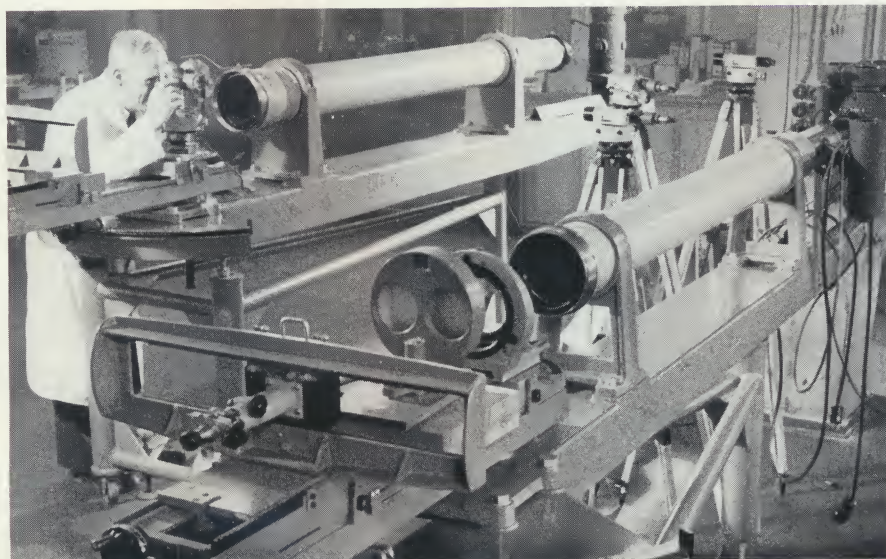
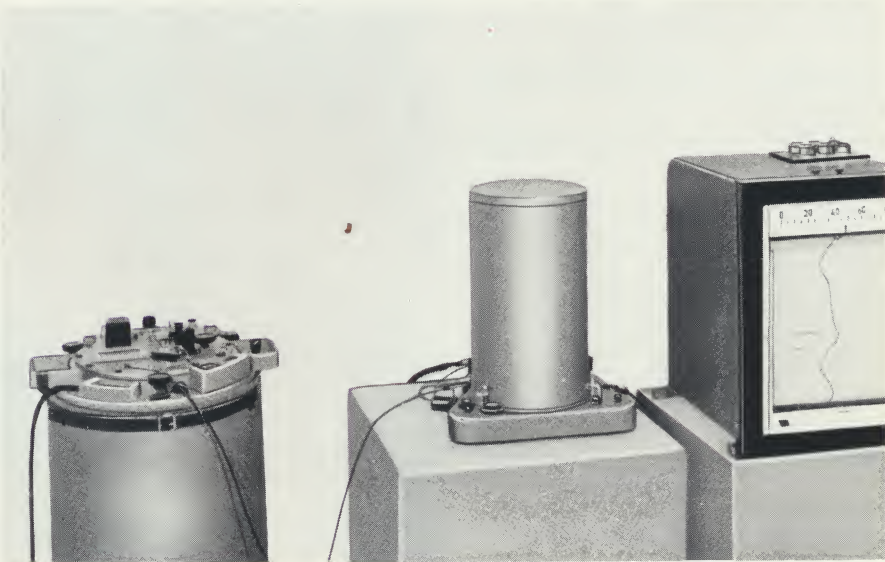
Geophysical Instruments for Prospecting

Gravimeters for measuring gravity · Field Balances and Torsion Magnetometers for magnetic prospecting · Geoelectric DC Measuring Equipment.

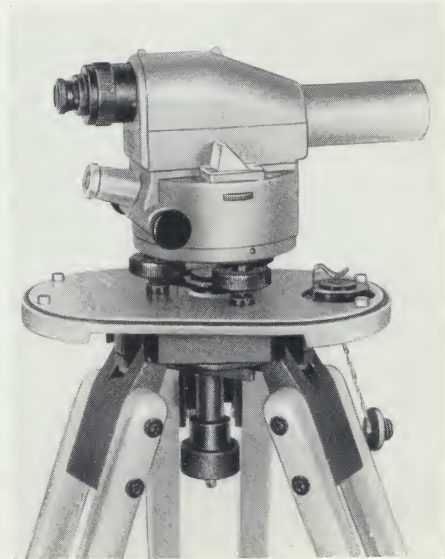
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Geophysical Instruments for Scientific Research

Magnetic Standard Theodolites and Earth Inductors for absolute determination of the earth's magnetic field in observatories · Magnetographs and Portable Variographs for recording the variations of the earth's magnetic field · Travel Theodolites · Horizontal and Universal Torsion Magnetometers for the determination of D, H, I, and Z · Four Pendulum Apparatus for visual and photographic measurements of gravity · Large Helmholtz Coil · Station Seismographs for local and remote earthquakes · Sea Gravimeters after Graf for gravity measurements on sea · Recording Gravimeters for earth tides · Microbarometers and Microbarographs.

Oceanographic Instruments

Water Level Gauges also with tele-transmitter · Water Level Announcers · Anchored self-recording Tide Gauges · Current Meters for determining direction and velocity of sea currents in coastal waters and high seas · Transparency Meters for investigating plankton layers etc. · Turbidimeters · Deep Sea Thermometers · Ocean Bottom Samplers and Scoopfishes for collecting bottom samples.

Testing and Measuring Instruments for Workshops and Laboratories

Precision Angle Measuring Instruments for optics (Spectrometers) · Precision Spherometers · Hand Spherometers ·

Optical Surface and Angle Testers · Universal Interferometers · Focometers · Testing Instrument for Objectives · Diopter Telescopes · Centering Telescopes · Magnifier Dynameters · Collimators for adjusting optical instruments · Plane and Plano-parallel Glass Plates · Precision Levels · Standard Prisms · Photoelectric Transducers.

Optics

Slide Projector Lenses · Wide Angle Lens Attachments · Lenses for Photogrammetry · Objectives and Eyepieces for telescopes and other optical instruments · Optical Components such as lenses, optical flats, mirrors, prisms etc. · Precision Levels.

Fig. 11 Torsion Magnetometer for geophysical prospection

Fig. 12 Tide Recording Equipment with Gravimeter and Photoelectric Amplifier

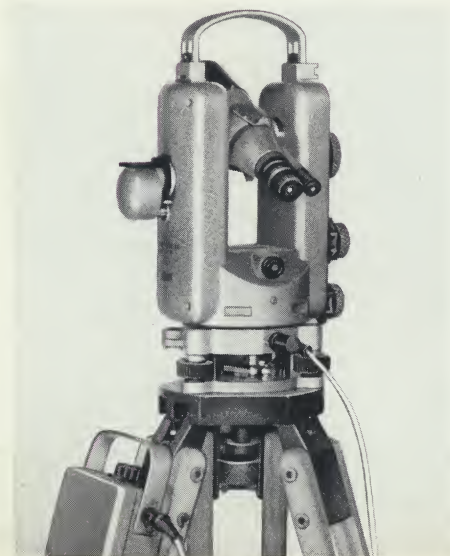
Fig. 13 Lens Testing Equipment is being assembled

Fig. 14 Automatic Dumpy Level with circle

Fig. 15 Tacheometer Theodolite for automatic indexing of the vertical circle

Fig. 16 Large Schmidt — Telescope for the Cagigal Observatory, Venezuela

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